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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,902	11/24/2003	Alan L. Billings	930034-2041	5301
20999	7590	07/07/2006	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			ROSSI, JESSICA	
			ART UNIT	PAPER NUMBER
			1733	
DATE MAILED: 07/07/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/720,902	<b>Applicant(s)</b> BILLINGS ET AL.	
	<b>Examiner</b> Jessica L. Rossi	<b>Art Unit</b> 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 4/27/06, Amendment.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 9-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of Species A and Species X in the reply filed on 4/27/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Therefore, this application contains claims 7 and 9-15 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### *Claim Rejections - 35 USC § 103*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billings et al. (US 6470944, of record) in view of Hansen (US 2002/0102894, of record) and further in view of McGahern et al. (US 6428874, of record).

With respect to claim 1, Billings teaches a single facer corrugator belt 40 in combination with a corrugator machine comprising a base structure 52 formed by machine direction yarns 56 and cross-machine direction yarns 54 and a polymeric resin layer 66 applied to at least one surface of the base structure (Figure 2; abstract; column 3, lines 10-18; column 4, lines 43-48). In fact, Billings teaches coating **and** impregnating the base structure with the resin so that **complete impregnation of the base structure** takes place because complete impregnation of the

Art Unit: 1733

base structure, **in addition** to forming a distinct resin layer on the outside surface of the base structure, improves the integrity and durability of the belt (column 4, lines 43-48).

It is unclear as to whether Billings teachings a plurality of grooves formed in the polymeric resin layer.

It is known in the art to make a belt, which can be used as a **long nip press belt in a paper machine or a corrugator belt in a corrugator machine**, having a base structure formed by yarns where grooves are provided in the yarns for temporarily storing water that is removed from the material as it is conveyed on the base structure, as taught by Hansen (sections [0015, 0021, 0052]). However, unlike Billings, Hansen does not teach impregnating the base structure with a resin.

It is known in the art to make a **long nip press belt for a paper machine** having a base structure formed by yarns and a polymeric resin layer that coats and impregnates the base structure so as to completely impregnate the base structure in addition to forming a distinct resin layer on the outside surface of the base structure where a plurality of grooves are formed in the distinct resin layer for temporarily storing water that is removed from the material as it is conveyed on the base structure, as taught by McGahern (Figure 3; abstract; column 2, lines 61-62; column 4, lines 45-47; column 5, lines 20-22).

Therefore, it would have been obvious to one of ordinary skill in the art to make the corrugator belt of Billings capable of temporarily storing water that is removed from the material as it is conveyed on the base structure because such is known in the corrugator belt art, as taught by Hansen; however, the manner by which Hansen achieves this capability (grooves in yarns) would not be suited to the base structure of Billings whose base structure is completely

Art Unit: 1733

impregnated with resin. Therefore, it would have been obvious to one having ordinary skill in the art to further look to the teachings of McGahern, who achieves the same capability in a base structure that is completely impregnated with resin by forming grooves in the resin layer, for motivation to provide grooves in the resin layer of Billings, especially since Hansen teaches it being known to use the same belt as a long nip press belt in a paper machine or as a corrugator belt in a corrugator machine.

Regarding claim 2, Billings in view of McGahern teaches such (column 6, lines 46-47 and 57-58).

Regarding claim 3, whether to use continuous or discontinuous grooves would have been within purview of the skilled artisan especially since one reading McGahern as a whole would have appreciated that the reference is not concerned with particular grooves.

Regarding claims 4-5, Billings teaches such (column 4, lines 2-18 and 43-48).

Regarding claim 6, Billings in view of McGahern teaches such (see Figure 3 of McGahern).

Regarding claim 8, Billings teaches such (column 3, lines 10-18) and/or Billings in view of McGahern teach such (column 4, line 58 – column 5, line 4).

#### ***Double Patenting***

4. The obviousness-type double patenting rejection of claims 1-6 and 8 of the present Application using US 6470944 to Billings et al., as set forth in paragraphs 6-7 of the previous action, is maintained. It is noted that Applicant did not submit any arguments with respect to this rejection.

***Response to Arguments***

5. Applicant's arguments filed 4/27/06 have been fully considered but they are not persuasive.

6. On p. 6 of the remarks, Applicant argues that Billings does not teach a polymeric resin layer applied to at least one surface of the base structure. The examiner points out that Billings does in fact teach this limitation, as set forth in paragraph 3 above (column 4, lines 43-48).

7. On p. 6-7 of the remarks, Applicant argues that McGahern relates to a resin-impregnated belt for a long nip press for a paper making machine whereas the present invention and Billings are directed to a resin-impregnated belt for a corrugator machine and therefore no motivation exists to look to the teaching of McGahern to modify Billings.

First, the examiner invites Applicant to **read the rejection set forth in paragraph 3 above**. The examiner would now like to point out that Applicant is arguing the reference to McGahern in a vacuum. The examiner may agree that, perhaps when taken alone, one having ordinary skill would not have motivation to modify Billings solely in view of McGahern and this is exactly why the examiner provided the teachings of Hansen to provide the missing link that makes it entirely proper to combine the teachings of Billings and McGahern (Hansen teachings it being known to use the same belt as a long nip press belt in a paper machine **or** as a corrugator belt in a corrugator machine where the belt is provided with grooves for temporarily storing water that is removed from the material as it is conveyed on the base structure).

Art Unit: 1733

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JESSICA ROSSI  
PRIMARY EXAMINER

